



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Haase, Richard A.

Serial No.: 09/866,145

Filed: 05/25/2001

Re-Issue of U.S. Pat. No. 5,906,750

Filed: 04/06/98

Title: Method of Dewatering Sludge

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Examiner: Chester T. Barry

Group Art Unit: 1724

Patent Owners Docket:
002 CIP RI

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Declaration of Richard A. Haase

My name is Richard Haase. I am of sound mind, capable of making this Declaration and have personal knowledge of the facts stated herein.

1. I am employed by ClearValue Inc. as President. I lead the organization in all technical and business endeavors.
2. I have knowledge and experience in the application of polyelectrolytes, including polyDADMAC, polyEpi-DMA, polyacrylamides, metal salts and polynuclear aluminum compounds.
3. I have read U.S. Pat. No. 5,954,964 and am fully capable and competent to understand the technology disclosed therein.
4. In my technical and professional opinion U.S. Pat. No. 5,954,964 presents teachings and embodiments which will not perform in the dewatering of thermophilic biological sludge.
5. I personally performed numerous laboratory tests in the dewatering of thermophilic bio-solids at both College Station and Texarkana, Texas wherein: a low molecular weight anionic polymer was tested with first a high molecular weight non-ionic polyacrylamide and second a high molecular weight anionic polyacrylamide, and wherein a low molecular weight non-ionic polyacrylamide was tested with first a high molecular weight non-ionic and second a high molecular weight anionic polyacrylamide. All of these tests were very poor failures. It is only the teaching in U.S. Pat. No. 5,846,435 and U.S. Pat. No. 5,906,750 wherein an improved dewatering performance over that of a traditional Q-9 (tertiary cationic) polyacrylamide.
6. Prior to, during and after the time frame of 1997 I visited the wastewater plants of College Station and Texarkana Texas.

4. During the winter and the fall of 1996 College Station Texas was having dewatering and economic performance difficulties with thermophilic bio-solids dewatering with thermophilic bio-solids from an ATAD. I performed many lab tests during the fall of 1996 and performed two plant demonstrations: one in September and one during November of 1996 at College Station wherein dewatering of the ATAD thermophilic digested bio-solids was performed with a 20 percent active DADMAC in combination with a cationic polyacrylamide, as compared to previous operation with only a Nalco cationic polyacrylamide.
5. Both demonstrations obtained a near 250% increase in centrifuge throughput and increasing the dry cake solids from near 10% to near 15%, while reducing centrate solids from near 4% to near 1%.
6. During November of 1996 I tried to negotiate a dry DADMAC supply agreement with Allied Colloids; I was not successful.
7. I was informed by The City of College Station that Allied Colloids and Kruger had performed a test after mine, wherein a total dry polymer composition was used. I was further informed that the plant operating results were similar to I had performed.
8. I additionally witnessed that the performance of the belt press dewatering operation in Texarkana, TX to be very poor as the floc was so loose that it did not even stay on the belts, thereby producing a significant mess in the dewatering area.
9. I recommended that the City of Texarkana dewater the new thermophilic bio-solids with a combination of CV 3650 (DADMAC) and CV 5240H (cationic polyacrylamide emulsion), the combination of chemicals taught in US Patent 5,846,435.
10. This recommendation proved very successful, thereby improving belt press throughput, dewatered percent solids and centrate percent solids beyond the previous performance available when dewatering mesophilic digested bio-solids with CV 5240H alone.
11. I have been informed that Ciba (Allied Colloids at that time), Polydyne and Callaway Specialty Chemicals, along with a few of their distributors attempted laboratory and belt press testing of their products to qualify for the 1997 bid in Texarkana. The belt press dewatering and secondary TSS polymer tests were performed as late as in the fall of 1997.
12. I was informed that none of the products tested by any of said suppliers during the testing of the fall of 1997 provided a product to qualify to dewater the thermophilic bio-solids in Texarkana. Due to those performance issues, the annual polymer bid was withheld during the winter of 1997.

13. During the spring of 1998, Ciba (Allied Colloids at that time), Polydyne and a distributor of Polydyne, Armstrong Technologies, performed well during laboratory and belt press testing. I believe that after witnessing the use of the chemical compounds provided by ClearValue to Texarkana that in the spring of 1998 Allied Colloids, Polydyne and Armstrong Technologies were able to provide an emulsion polymer system which met both laboratory and plant performance requirements to dewater thermophillic digested bio-solids.
14. It is my understanding that Ciba (Allied Colloids) and SNF, Inc., along with their associated distributors across the United States are known to provide polyquaternary amines in the dewatering of thermophillic bio-solids and bio-solids from a thermophillic digestion process to the following cities: College Station, Texas; Texarkana, Texas; Houston, Texas (Gulf Coast Waste Disposal Authority); Los Angeles, CA (The Hyperion Plant); Tampa, FL; Birmingham, AL and Jackson, MS.
15. It is my belief that Ciba (Allied Colloids) and SNF, Inc., along with their associated distributors, have copied the technology in U.S. Pat. No. 5,846,435 across the United States. I have this belief because I was present during the plant demonstration of the technology in U.S. Pat. No. 5,846,435 and the lab demonstration of the technology in U.S. Pat. No. 5,906,750 in both College Station, TX and in Texarkana, Texas. In both locations, I was told by operating personnel that ClearValue was the only supplier to perform well on thermophillic digested bio-solids. In both locations, ClearValue lost the business when the technology in U.S. Pat. No. 5,846,435 or the subsequent U.S. Pat. No. 5,906,750 was sold at a lower price.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

Full name of Declarant: Richard Alan Haase
Residence: 4402 Ringrose Dr., Missouri City, TX 77459
Citizenship: USA
Post Office Address: N/A

Date: 2/25/04

A handwritten signature in black ink, consisting of several loops and a final vertical stroke, enclosed within a faint rectangular border.

Signature of Declarant